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I-20121 Milano (IT)(54) **Stackable container for holding paper or the like.**

(57) Stackable container for holding paper or the like, wherein the lower edge (15) of each side (5, 7) has a horizontal tooth (21) which is adapted to engage a slot (19) formed on the upper edge (11) of each side of an identical underlying container (1). The lower

edge (17) also has vertical teeth (23) which are adapted to prevent the horizontal tooth from moving out of the slot. An anchoring plate allows to hang the stacked containers for example below a desk.

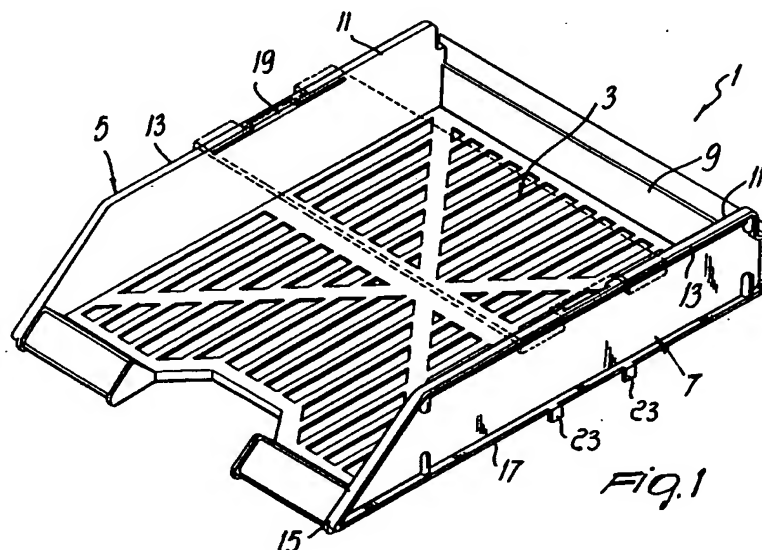


Fig. 1

EP 0 558 909 A1

The present invention relates to a stackable container for holding paper or the like.

It is known to produce paper-holding trays, also called in/out trays, so that they can be stacked on top of one another on the working surface. Various systems, generally of the snap-together type, have also been proposed for stacking the trays so that they cannot be easily separated.

A conventional tray, for example, has a tooth formed on the lower outer side of each side wall of the tray and is suitable for entering a corresponding slot formed on the upper inner edge of the respective side wall of the underlying tray.

The advantages which arise from having anchored trays are apparent, and several commercially available trays provide this feature. However, the trays are made of plastics and are very thin for greater lightness, therefore, when loaded with heavy objects or simply while being handled, the trays have a tendency to flex. This flexing can easily cause the disengagement of the trays from one another.

One aim of the present invention is to provide an item-holding container or tray with a coupling system which is absolutely safe and capable of withstanding the greatest weights.

Within the scope of this aim, an object of the invention is to provide a container which allows the rapid and easy coupling of one container to another.

Another object of the invention is to provide a container which has a simple structure and can be obtained easily from the point of view of production.

This aim, these objects and others, which will become apparent to those skilled in the art, are achieved by a stackable container for holding paper or the like, comprising at least one bottom, a right side and a left side, each of said sides comprising an outer upper edge, an inner upper edge, an outer lower edge and an inner lower edge, characterized in that it comprises: a slot shaped as inverted T and formed on said inner upper edge of each of said sides; a horizontal tooth formed on said inner lower edge of each of said sides, said horizontal tooth being directed outward and being adapted to engage said slot of a second container arranged below said container, locking means formed on said outer edge of each of said sides, said locking means being adapted to cooperate with said outer upper edge of each of said sides of said second container, so as to prevent said horizontal tooth from disengaging from said slot substantially in a direction which is orthogonal to the extension of said slot.

Further characteristics and advantages of the invention will become apparent from a reading of the detailed description of a preferred but not ex-

clusive embodiment of a container according to the invention, illustrated only by way of a non-limiting example in the accompanying drawings, wherein:

Figure 1 is a top perspective view of a container according to the invention;

Figure 2 is a perspective view of the anchoring plate fixed to the lower face of a surface;

Figure 3 is a transverse sectional detail view of the coupling system according to the invention;

Figure 4 is a schematic perspective view of a plurality of stacked containers.

With reference to the above figures, the container according to the invention, generally designated by the reference numeral 1, comprises a bottom 3, a left side 5, a right side 7 and a rear side 9.

Each side comprises an inner upper edge 11, an outer upper edge 13, an inner lower edge 15, and an outer lower edge 17.

The inner upper edge of each side comprises a slot 19 which is shaped as an inverted T and lies longitudinally along said edge so that the central stem of the T is open onto the upper face of the same side of the structure.

The inner lower edge 15 of each side of the structure has a horizontal tooth 21 which is directed outward and is adapted to engage the slot 19 of the respective side of a second underlying container to be coupled to the container.

The outer lower edge 17 of each side of the container has a locking means which, in the illustrated embodiment, is constituted by a pair of vertical teeth 23. The vertical teeth 23 are adapted to cooperate with the respective outer upper edge of the second container to be coupled below.

In order to couple the first container to the second underlying container it is sufficient to mate the horizontal teeth of the first container with the upper opening of the respective slots of the second container and make an L-shaped movement.

As shown in Figure 3, in the coupled condition, the vertical teeth 23 of the first container abut with the outer upper edge of the second container, so that even in case of a considerable flexing of the bottom 3 of the first container the horizontal tooth 21 cannot leave the slot 19 in a horizontal direction.

The container according to the invention also comprises an anchoring plate 25, as shown in Figure 2, which is adapted to be fixed to the lower surface 27 of a working surface 29, such as desk, for example.

The anchoring plate 25 comprises a left edge 31 and a right edge 33, and each edge comprises a horizontal tooth 35 and a pair of vertical teeth 37.

Once the plate 25 has been fixed to the working surface, it is sufficient to move the container 1 to be coupled with an inverted L-shaped movement in order to fix it to the plate. It is also possible to

couple several other containers by stacking them one below the other.

It has been observed in practice that the invention achieves the intended aim and objects by providing a stackable container which is constructively very simple and at the same time resistant to the most intense stresses.

The coupling system is so safe that it allows to couple the containers below one another, hanging for example under the desk, with no risk that they may disengage.

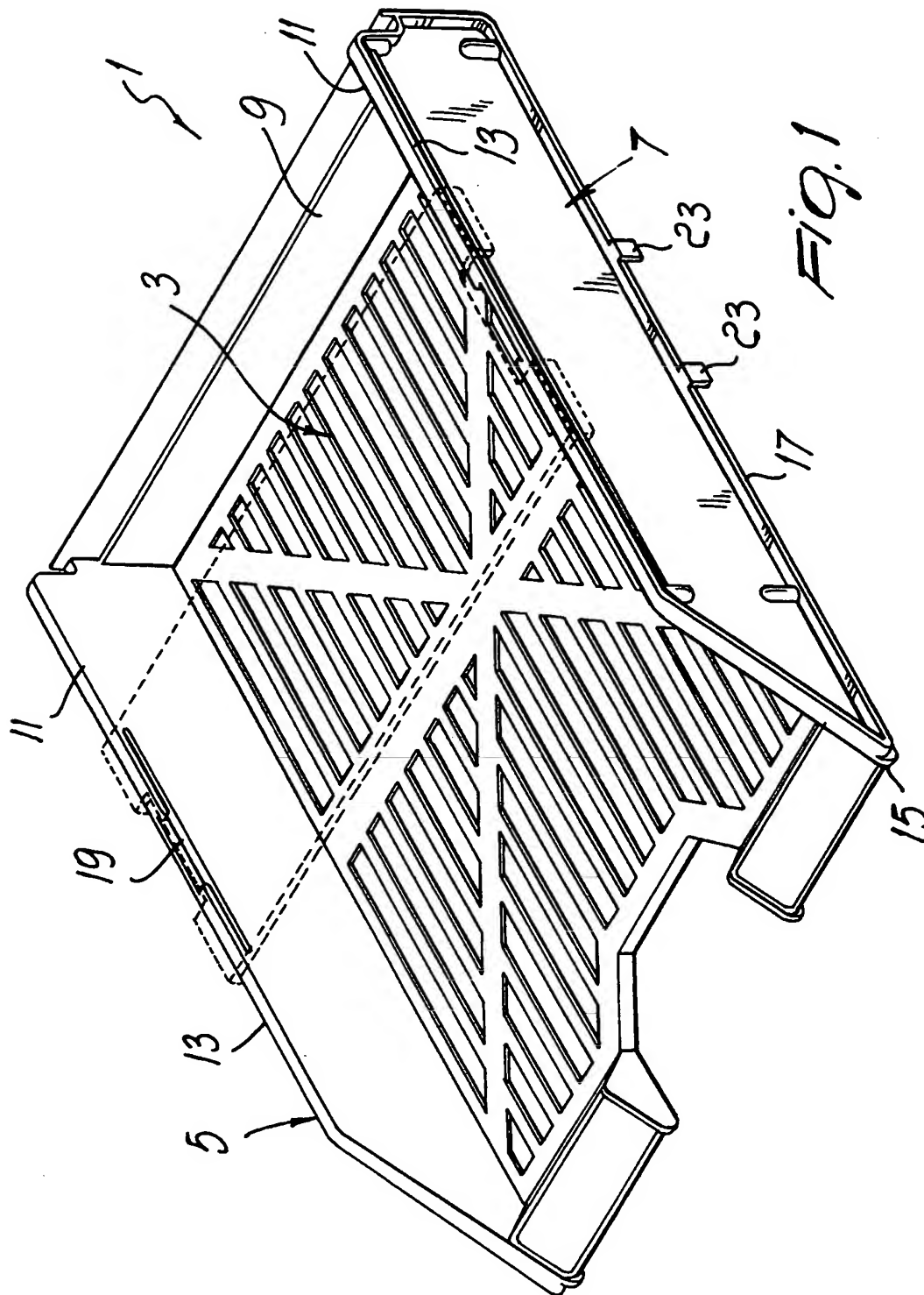
The container according to the invention is susceptible to numerous modifications and variations, all of which are within the scope of the inventive concept. All the details may furthermore be replaced with other technically equivalent elements.

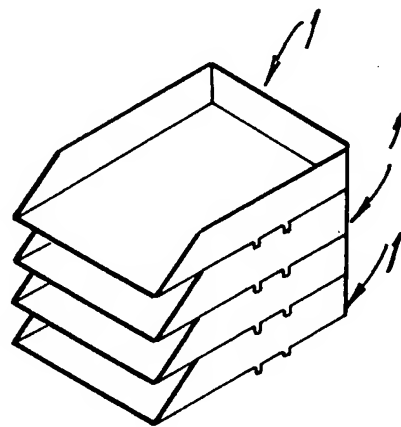
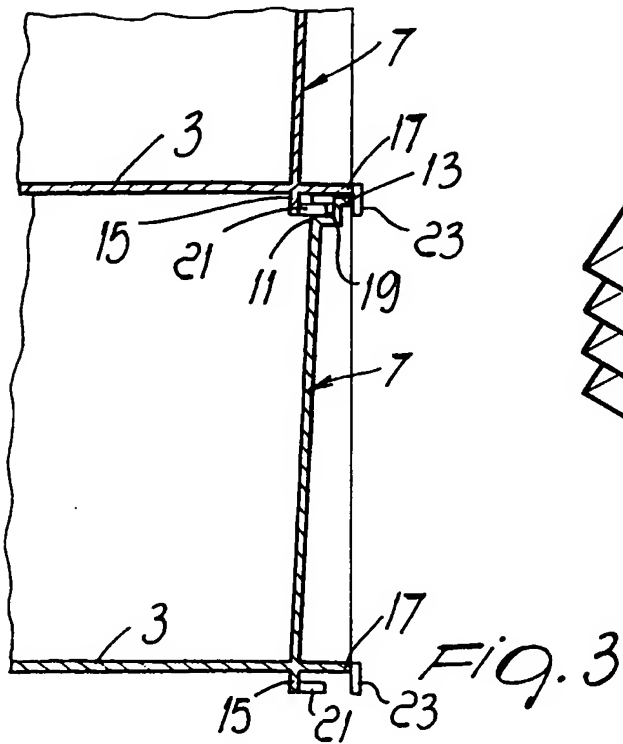
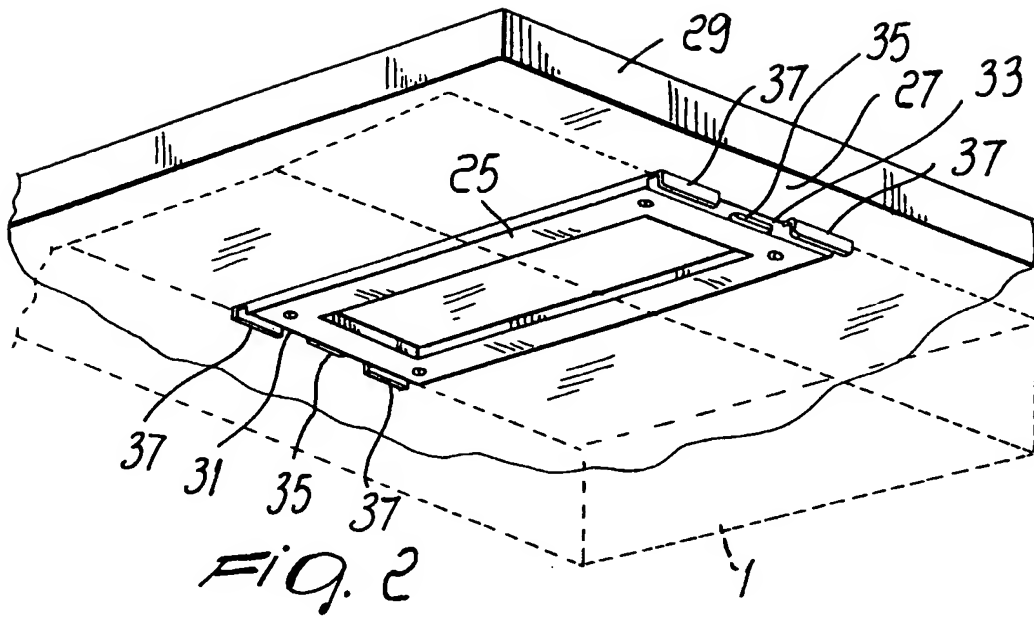
In practice, the materials employed, as well as the dimensions, may be any according to the requirements.

Where technical features mentioned in any claim are followed by reference signs, those reference signs have been included for the sole purpose of increasing the intelligibility of the claims and accordingly, such reference signs do not have any limiting effect on the scope of each element identified by way of example by such reference signs.

Claims

1. Stackable container for holding paper or the like, comprising at least one bottom (3), a right side (7) and a left side (5), each of said sides comprising an outer upper edge (13), an inner upper edge (11), an outer lower edge (17) and an inner lower edge (15), characterized in that it comprises: a slot (19) shaped as inverted T and formed on said inner upper edge of each of said sides; a horizontal tooth (21) formed on said inner lower edge of each of said sides, said horizontal tooth being directed outward and being adapted to engage said slot of a second container arranged below said container, locking means (23) formed on said outer edge of each of said sides, said locking means being adapted to cooperate with said outer upper edge of each of said sides of said second container, so as to prevent said horizontal tooth from disengaging from said slot substantially in a direction which is orthogonal to the extension of said slot.
2. Container according to claim 1, characterized in that said locking means comprises a pair of vertical teeth (23) formed proximate to said horizontal tooth.
3. Container according to claim 1 or 2, characterized in that it comprises an anchoring plate (25) adapted to be fixed to the lower face (27) of a surface (29), such as a table, in order to couple one of said containers to said surface, said plate comprising a right edge (33) and a left edge (31), each of said edges comprising said horizontal tooth (35) and said locking means, said horizontal tooth being adapted to engage said slot of said inner upper edge of said container, said locking means being adapted to cooperate with said outer upper edge of the respective said side of said container to be coupled.







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EUROPEAN SEARCH REPORT

Application Number

EP 93 10 1053

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
X	DE-U-8 504 841 (HAN-BÜROGERÄTE) * page 5, line 24 - line 34; figures 1,2 *	1	B42F7/12
A	CH-A-650 731 (BIELLA-NEHER) -----		
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			B42F B65D A47B
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 10 JUNE 1993	Examiner HAGBERG A.M.E.
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